Parking Management Best Practices

Innovative Solutions to Parking Problems

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Redefining Parking Problems

Parking problems are one of the most common complaints businesses and local officials face. They can constrain economic development.

Parking Problem?

Parking Problem?

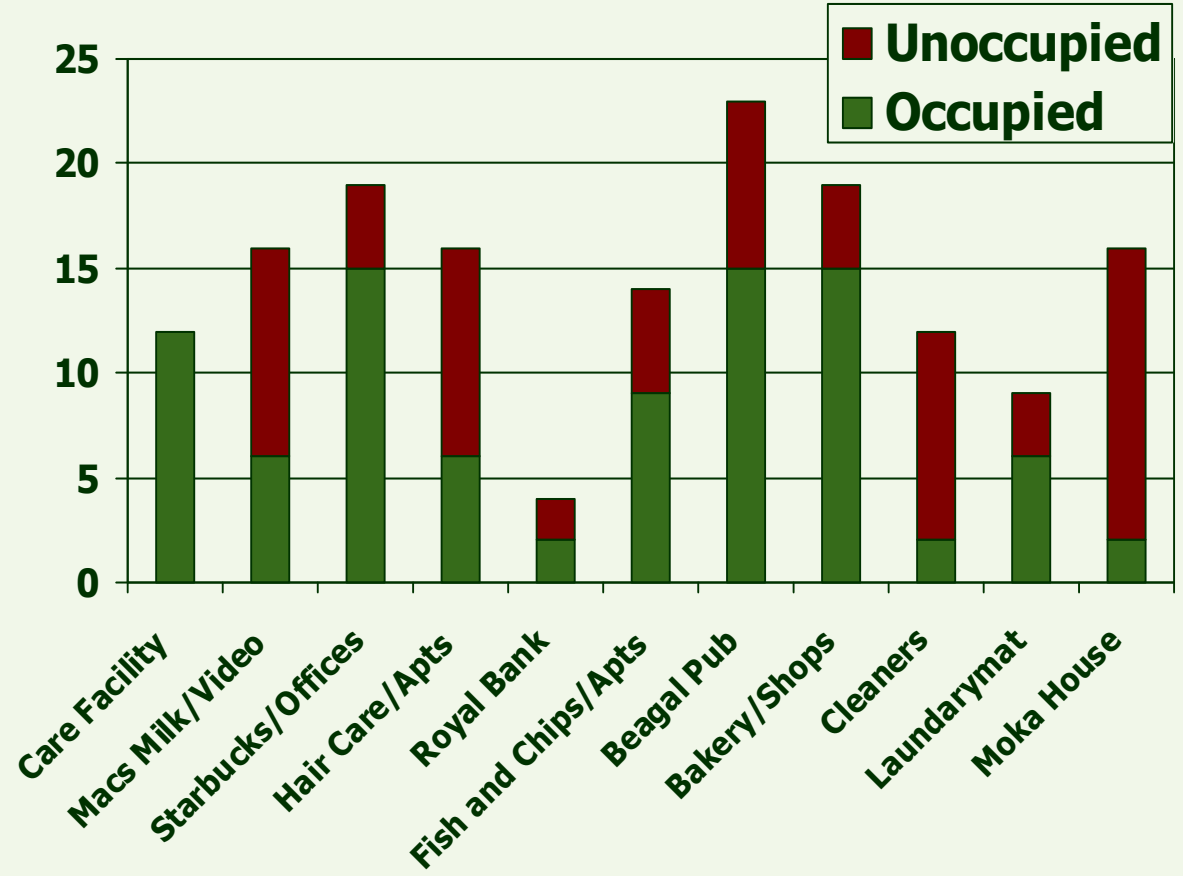
Cook Street Village Parking Utilization

Unoccupied

Weekday Noon: 44%

Friday Night: 50%

Saturday Morning: 51%



Parking Management Problem

Many areas don't really have a **parking supply** problem, the real problem is that existing parking spaces are unavailable to the motorists who need them.

Parking Management

Parking Management consists of various strategies that result in more efficient use of existing parking resources.

Shared Parking

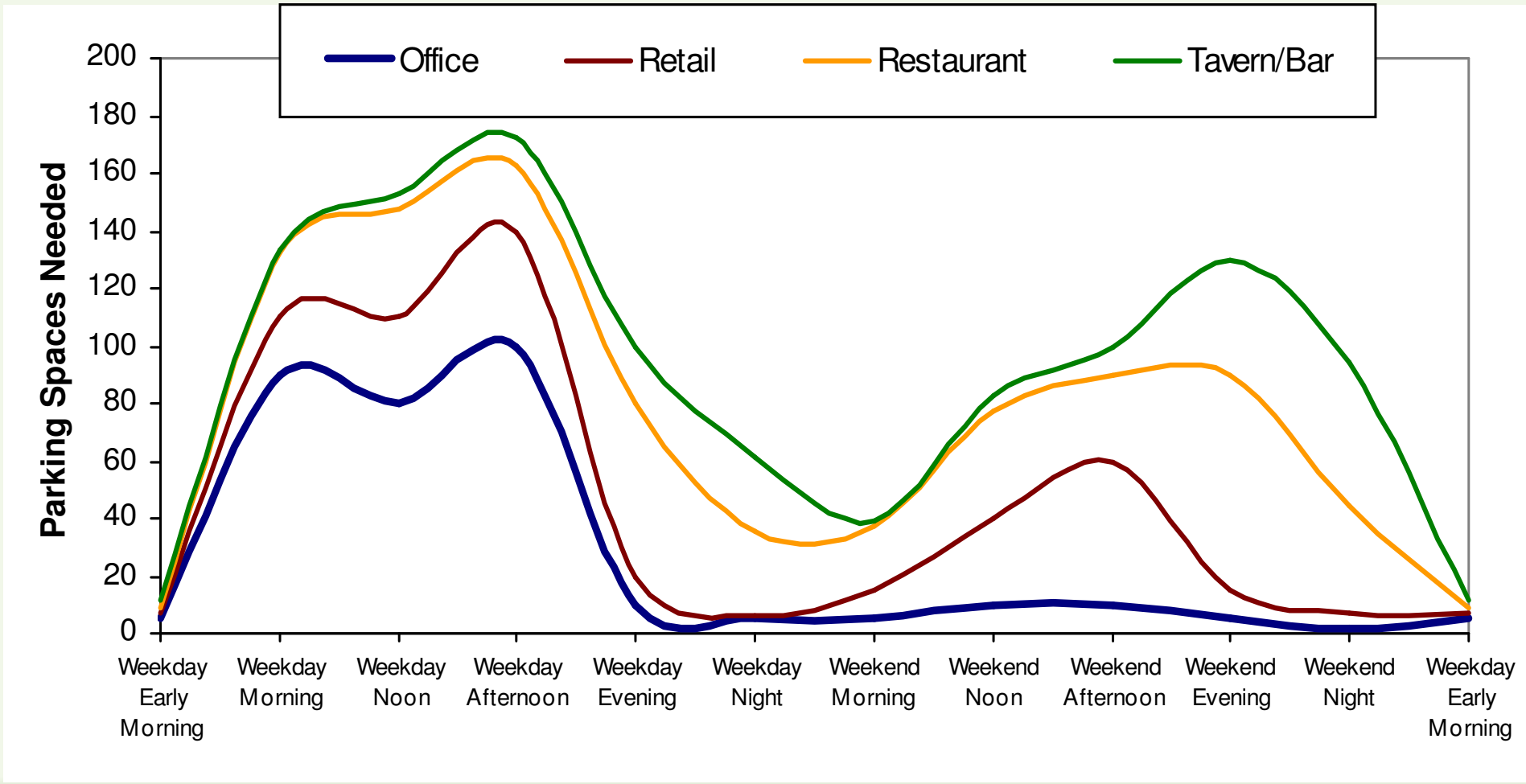
Parking spaces are shared by multiple users, increasing efficiency:

- Shared rather than assigned spaces within a lot.
- Shared among destinations (e.g. office and restaurant).
- Rely more on public, on-street rather than private off-street parking.

Typical Peak Periods

Weekday	Evening	Weekend
Banks and public services	Auditoriums	Religious institutions
Offices and other worksites	Bars and dance halls	Parks
Park & Ride facilities	Meeting halls	Shops and malls
Schools and colleges	Restaurants	
Daycare centers	Theaters	
Transit terminals	Hotels	
Distribution centers		
Medical clinics		
Professional services		

Sharing Parking



Regulate Parking

Manage and regulate the most convenient spaces to favor higher-value trips.

- Use (deliveries, taxis)
- User (customers, residents, disabled users).
- Duration (e.g. 60-minute maximum).
- Time (e.g., no parking 9am-5pm).

More Accurate Standards

Conventional Standards are often excessive and can be significantly reduced.

Adjustment Factors:

- Residential and employment density
- Land use mix
- Transit accessibility
- Carsharing
- Walkability
- Cycling facilities
- Population demographics (age, employment, income, etc.)
- Pricing
- Parking & mobility management
- Proximity to overflow parking

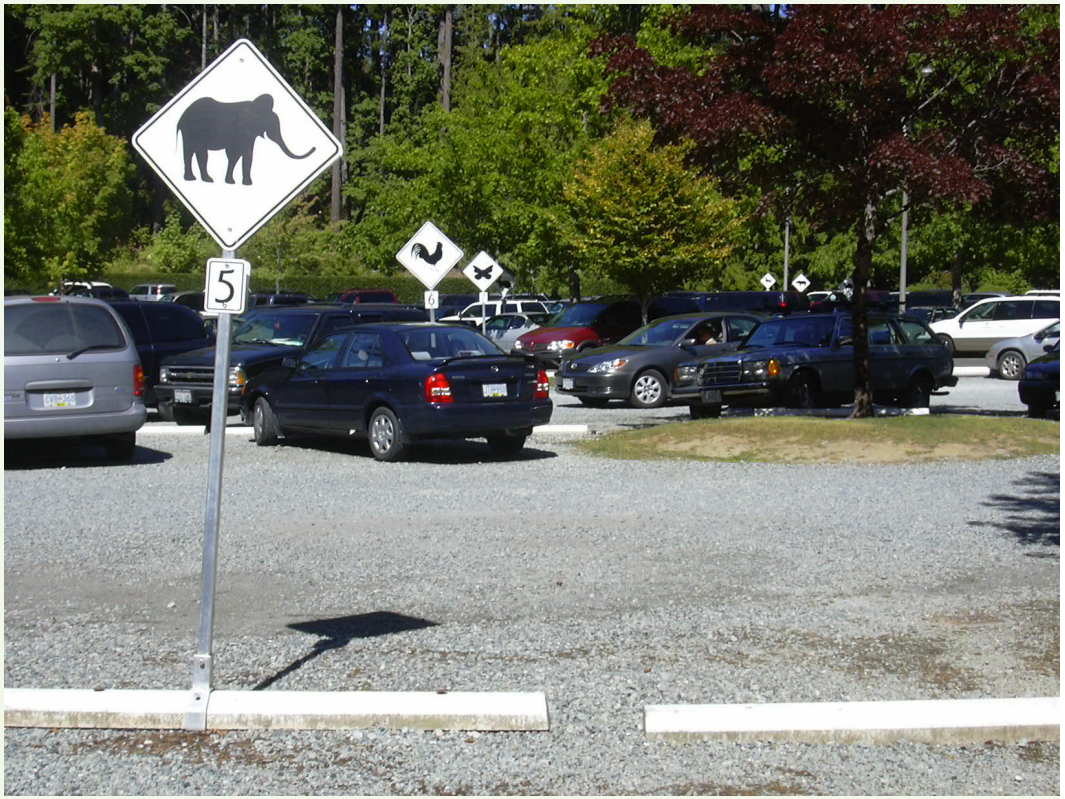
Factor	Typical Adjustments
Residential Density	Reduce requirements 1% for each resident per acre; e.g., 15% where for 15 residents per acre, and 30% for 30 residents per acre.
Employment Density	Reduce requirements 10-15% in areas with 50+ employees per gross acre.
Land Use Mix	Reduce requirements 5-10% in mixed-use areas, and more if parking can be shared.
Transit Accessibility	Reduce requirements 10% for housing and employment within ¼ mile of frequent bus service, and 20% within ¼ mile of a rail transit station.
Carsharing	Reduce residential requirements 5-10% if a carsharing service is located nearby, or 4-8 spaces for each carshare vehicle in a residential building.
Walkability	Reduce requirements 5-15% in walkable communities, and more if walkability allow more shared and off-site parking.
Income	Reduce requirements 10-20% for the 20% lowest income households, and 20-30% for the lowest 10%.
Pricing	Reduce requirements 10-30% for cost-recovery pricing (i.e. parking priced to pay the full cost of parking facilities).
Parking & Mobility Management	Reduce requirements 10-40% at worksites with effective parking and mobility management programs.
Design Hour	Reduce requirements 10-20% if a 10th annual design hour is replaced by a 30th annual peak hour. Requires overflow plan.
Contingency-Based Planning	Reduce requirements 10-30%, and more if a comprehensive parking management program is implemented.

Remote Parking

- Encouraging longer-term parkers (e.g., employees) to use less-convenient, off-site parking, so more convenient spaces are available for priority users (e.g. customers).
- Negotiate sharing agreements for offsite, overflow parking.
- Provide directions to offsite parking facilities.

Improve User Information

Provide convenient information on parking availability and price, using maps, signs, brochures and electronic communication.



Improve User Information

Whenever you indicate that parking is prohibited, also indicate where parking is available.

Improve Walkability

Improved walking conditions:

- Expands the range of parking spaces that serves a destination, increasing its functional supply.
- Allows more “park once” trips, so customers leave their vehicle in a central location and walk to various destinations, reducing the total number of parking spaces needed.
- Allows walking and transit trips to substitute for driving, reducing parking demand.

Mobility Management

Various policies and programs that encourage more efficient travel patterns. Reduces automobile trips and parking demand.

Encouraging Transit Use

- Quality service (convenient, fast, comfortable).
- Low fares.
- Support (walkable communities, park & ride facilities, commute trip reduction programs).
- Parking pricing or “cash out”.
- Integrated with special events.
- Convenient information.
- Positive Image.

Pricing

Parking is never really free, consumers either pay directly or indirectly. Paying directly tends to be more fair and efficient, and typically reduces parking demand about 20%.

Shifts Modes

Cost-recovery parking prices (or *cash out*) typically reduces affected automobile trips 10-30% and increases transit ridership 50-100%

Unbundle Parking

Rent and sell parking spaces separately from building units. For example, rather than renting an apartment with two free parking spaces for $800 per month, rent the unit for $700, and each parking space for $50 per month.

Address Negative Impacts

- Develop overflow parking plan to address occasional peaks.
- Address specific spillover problems.
- Improve enforcement.
- Design parking facilities to fit well into their environment.
- Improve relations with neighbors.
- Compensate for spillover impacts.

Better Use of Existing Supply

- Spaces for smaller vehicles and motorcycles.
- Angled rather than parallel curb parking.
- Car stackers.
- Valet parking.
- Use currently unused spaces.
- Flexible spaces.

New Solutions to Parking Problems

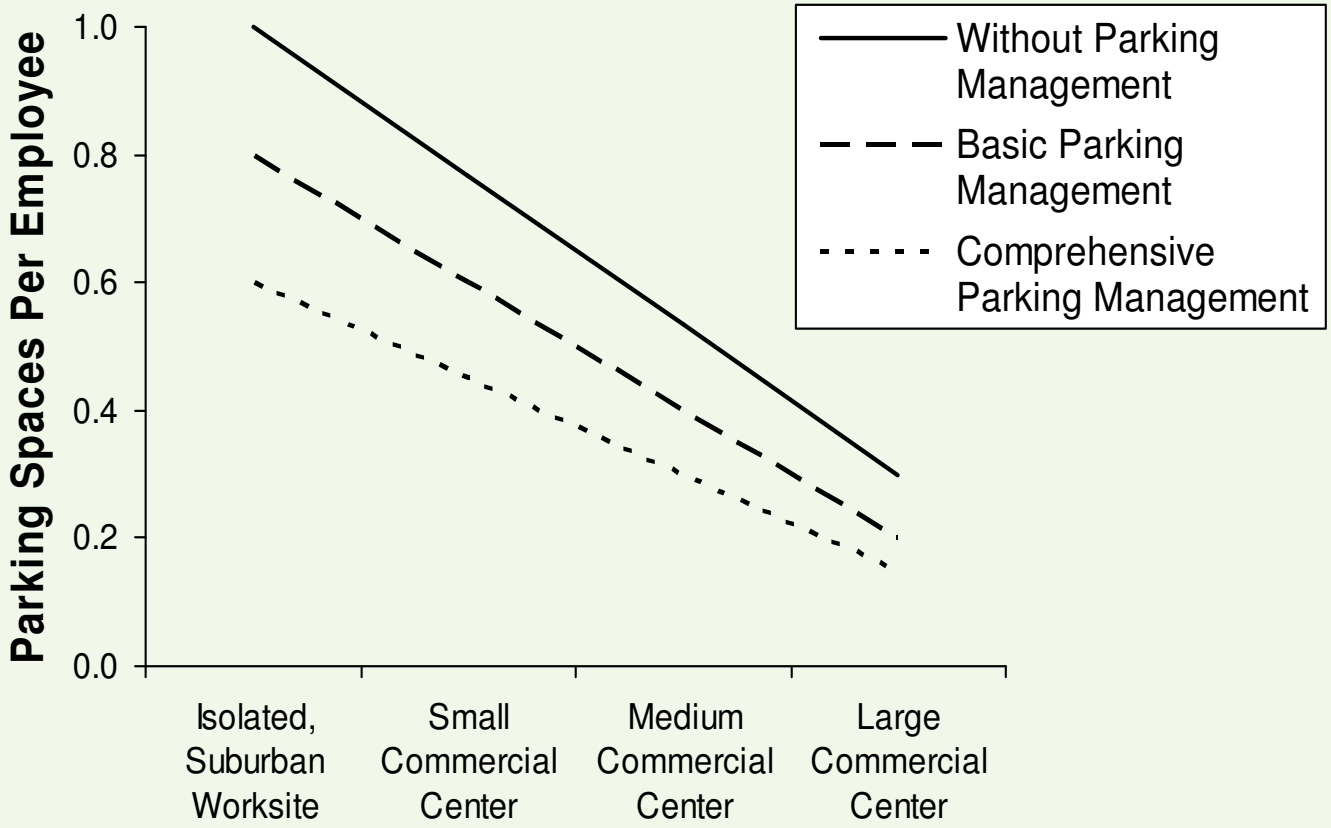
Conventional planning forces developers to supply abundant parking using inflexible standards. There are other ways to address parking problems through more efficient management, which reduces costs and allows better design.

Strategy	Typical Parking Reduction	Traffic Reduction
Shared Parking	10-30%	
Parking Regulations	10-30%	
More Accurate Standards	10-30%	
Parking Maximums	10-30%	
Remote Parking	10-30%	
Smart Growth/TOD	10-30%	✓
Walking and cycling Improvements	5-15%	✓
Increase Existing Facility Capacity	5-15%	
Mobility Management	10-30%	✓
Parking Pricing	10-30%	✓
Financial Incentives	10-30%	✓
Unbundle Parking	10-30%	✓
Parking Tax Reform	5-15%	✓
Bicycle Facilities	5-15%	✓
Improve User Information	5-15%	✓
Improve Enforcement	Varies	
Parking Facility Design & Operation	Varies	
Contingency-Based Planning	Varies	

Significant Benefits

Improved management can often reduce parking requirements by 20-40% compared with what would be required by conventional planning, without reducing user convenience or total costs.

Reduces Parking Requirement



Why Parking Management?

- Improves motorist convenience.
- Cost savings.
- Supports smart growth.
- Urban redevelopment.
- Greenspace preservation.
- More walkable communities.
- Increased housing affordability.
- Reduced pavement (reduces stormwater management costs, heat island effects).
- Encourages use of alternative modes, reduces traffic problems.
- Creates more attractive streets.
- Is more equitable.

Benefits

Most people never purchase parking spaces as a separate item, and so underestimate their costs and the potential savings from more efficient management.

Cost Per Parking Space

- Surface - $2,000-5,000 ($250-600 annualized cost)
- Structure - $10,000-15,000 ($750-1,500 annualized cost)
- Underground - $20,000-40,000 ($2,000-3,000 annualized cost)

Plus various external costs, such as stormwater management and aesthetic degradation.

Housing Affordability

Mixed-use San Francisco building with 74 affordable family apartments, 88 small studios, a child care center and a market. Totals 246 bedrooms and 24,000 square feet of commercial space. Contains a 66-space parking garage, 0.38 spaces per unit, with parking rented separately from housing units, which significantly reduced apartment rents.

Example - Aspen/Snowmass

- Free shuttle service within the Village.
- Twice-hourly bus service to airport. Free to Aspen (always) and to Snowmass during ski season, and $3 to Snowmass at other times.
- Priced downtown on-street parking.
- Downtown parking plaza with affordable rates.
- Residential neighborhood parking regulated to discourage commuters.
- Pedestrian and cycling improvements.
- Commuter transit service improvements.
- Hybrid transit buses.

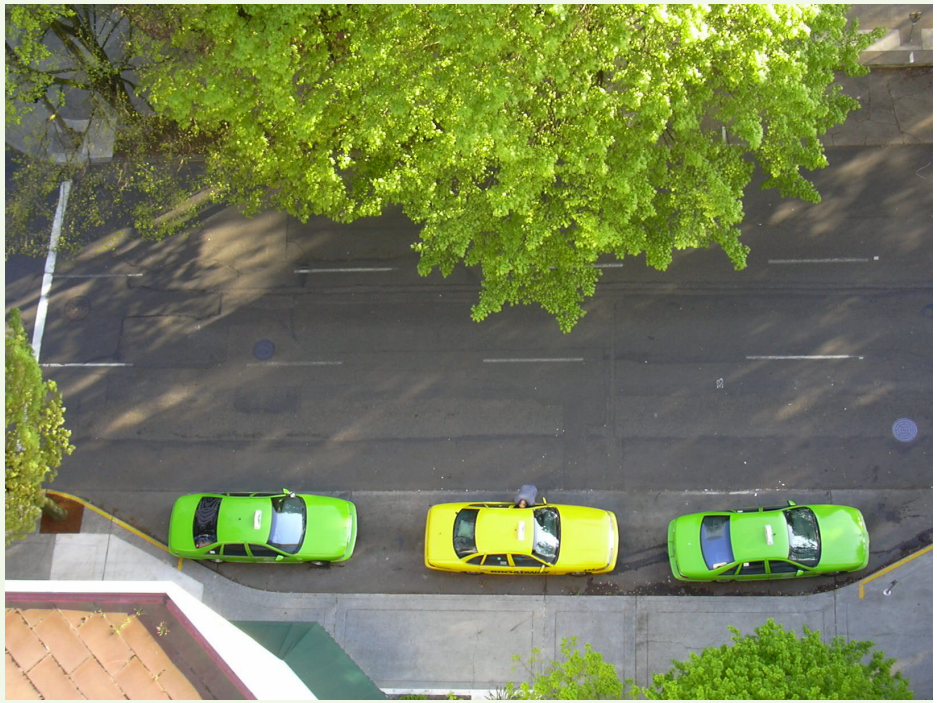
Example - Old Pasadena

The city proposed pricing on-street parking to increase turnover and make spaces available to customers. Local merchants initially opposed the idea. As a compromise, the city agreed to dedicate revenues to improving downtown public facilities and services. In 1993 a Parking Meter Zone (PMZ) was established within revenues invested in.

- Street furniture
- Trees
- Police patrols
- Better street lighting,
- More street and sidewalk cleaning
- Pedestrian facility improvements
- Downtown marketing

Changes Required

- Change the way we think about and solve parking problems.
- New planning practices and zoning codes.
- New organizational relationships to provide parking management and brokerage services.



"Parking Management: Strategies, Evaluation and Planning"

"Online TDM Encyclopedia"

and more...

www.vtpi.org